

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Withdrawn-Currently Amended) A circuit ~~(1)~~ for operation of a gas discharge lamp ~~(3)~~ with a switching transformer ~~(2)~~, which wherein the switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized in that wherein the switching transformer (2) further comprises a second control loop (80) for adjusting parameters including at least one of rise time and steepness of regions of a measured lamp waveform.

2. (Withdrawn-Currently Amended) A The circuit as claimed in claim 1, ~~characterized in that wherein the control loop (80)~~ comprises a third inner control loop ~~(81)~~.

3. (Withdrawn-Currently Amended) A The circuit as claimed in claim 2, ~~characterized in that wherein~~ the third inner control loop ~~(81)~~ comprises a computer circuit ~~(83)~~.

4. (Withdrawn-Currently Amended) A The circuit as claimed in claim 3, ~~characterized in that wherein~~ the computer circuit ~~(83)~~ is controlled by a commutation signal.

5. (Withdrawn-Currently Amended) A The circuit as claimed in claim 2, ~~characterized in that wherein~~ the third inner control loop ~~(81)~~ comprises a memory ~~(85)~~.

6. (Withdrawn-Currently Amended) A The circuit as claimed in claim 1, ~~characterized in that wherein~~ the second control loop ~~(80)~~ comprises an integrating controller ~~(82)~~.

7. (Withdrawn-Currently Amended) A The circuit as claimed in claim 1, ~~characterized in that wherein~~ the second control loop ~~(80)~~ comprises a measuring filter ~~(5)~~.

8. (Withdrawn-Currently Amended) A measuring filter (5) for a circuit (1) for operation of a gas discharge lamp (3) with a switching transformer (2), which wherein the switching transformer comprises a switch (22), a converter inductor (24) and a control means (27), characterized in that wherein the measuring filter (5) comprises two sample-and-hold stages (53, 56) for measuring a lamp waveform used to determine parameters including at least one of rise time and steepness of regions of the measured lamp waveform;.

9. (Withdrawn-Currently Amended) A The measuring filter (5) as claimed in claim 8, characterized in that the measuring filter (5) comprises further comprising an adder (61).

10. (Withdrawn-Currently Amended) A The measuring filter (5) as claimed in claim 8, characterized in that wherein the measuring filter (5) is controlled by a clock signal (90).

11. (Currently Amended) A method for operation of a gas discharge lamp (3) with a switching transformer (2), which wherein

the switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power, characterized by the following method steps comprising the acts of:

[[-]] measuring values of at least one operational datum (125, 128, 131) of the lamp (3) varying with time are measured continuously or discontinuously,

[[-]] comparing the measured operational data (125, 128, 131) is compared with calculated operational data,

[[-]] adjusting parameters necessary for calculation are adjusted, said parameters including at least one of rise time and steepness of regions of a measured lamp waveform, and

[[-]] selecting a duty factor of a supply current is selected in dependence on the adjusted parameters.

12. (Withdrawn-Currently Amended) A method for operation of a gas discharge lamp (3) with a switching transformer (2), which wherein the switching transformer comprises a switch (22), a converter inductor (24) and a control means (27) in a control loop (33) for measuring a lamp voltage and setting a desired power,

~~characterized by the following method steps comprising the acts of:~~

[[-]] measuring values of at least one operational datum
~~(125, 128, 131) of the lamp (3) varying with time are measured~~
~~continuously or discontinuously,~~

[[-]] comparing the measured operational data ~~(125, 128,~~
~~131) is compared~~ with calculated operational data,

[[-]] adjusting parameters necessary for calculation ~~are~~
adjusted, said parameters including at least one of rise time and
steepness of regions of a measured lamp waveform, and

[[-]] selecting a frequency of an alternating voltage or
an alternating current ~~is selected~~ in dependence on the adjusted
parameters.

13. (Withdrawn-Currently Amended) A method for operation of a
gas discharge lamp ~~(3)~~ with a switching transformer ~~(2)~~, which
wherein the switching transformer comprises a switch ~~(22)~~, a
converter inductor ~~(24)~~ and a control means ~~(27)~~ in a control loop
~~(33)~~ for measuring a lamp voltage and setting a desired power,
~~characterized by the following method steps comprising the acts of:~~

[[-]] measuring values of at least one operational datum

~~(125, 128, 131) of the lamp (3) varying with time are measured continuously or discontinuously,~~

[[-]] comparing the measured operational data ~~(125, 128, 131)~~ is compared with calculated operational data,

[[-]] adjusting parameters necessary for calculation ~~are adjusted,~~ said parameters including at least one of rise time and steepness of regions of a measured lamp waveform, and

[[-]] selecting a valve-value of a supply current is selected in dependence on the adjusted parameters.

14. (Currently Amended) A The method as claimed in claim 11, ~~characterized in that wherein~~ initially set parameters are parameters of a new lamp ~~(3)~~.

15. (Currently Amended) A The method as claimed in claim 11, ~~characterized in that wherein~~ the parameters are storable in a memory ~~(85)~~.

16. (Currently Amended) A The method as claimed in claim 11, ~~characterized in that wherein~~ in steady-state operation the

parameters inside the memory ~~(85)~~ are exactly those of the
connected lamp ~~(3)~~.

17. (Withdrawn-Currently Amended) A circuit ~~(1)~~ for operation
of a gas discharge lamp ~~(3)~~ with a switching transformer ~~(2)~~, ~~which~~
wherein the switching transformer comprises a switch ~~(22)~~, a
converter inductor ~~(24)~~ and a control means ~~(27)~~ in a control loop
~~(33)~~ for measuring a lamp voltage and setting a desired power,
~~characterized in that wherein the switching transformer ~~(2)~~ further~~
comprises an inner control loop ~~(81)~~ for adjusting parameters
including at least one of rise time and steepness of regions of a
measured lamp waveform.

18. (Withdrawn) A data and video projector having a circuit as
claimed in claim 1.

19. (Previously Presented) A data and video projector having a
circuit for implementing a method as claimed in claim 11.